



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Arsenic sulfide

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1. Product and Company Identification

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Trade Name: Arsenic sulfide  
Chemical Formula:  $As_2S_3$   
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.  
Street: 37 Ramland Road  
City: Orangeburg  
State: New York  
Zip Code: 10962  
Country: USA  
Tel #: 845-587-2436 / 845-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)  
+1-703-527-3887 (International)

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2. Hazards Identification

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Signal Word: Danger



Hazard Statements: H301+H331: Toxic if swallowed, in contact with skin or inhaled

Precautionary Statements: P261: Avoid breathing dust/fume/vapor  
P273: Avoid release to the environment  
P270: Do not eat, drink or smoke when using this product  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician...  
P361: Remove/Take off immediately all contaminated clothing  
P309: IF exposed or you feel unwell:  
P310: Immediately call a POISON CENTER or doctor/physician  
P302+352: IF ON SKIN: Wash with soap and water  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

	Powder	Pieces
Health:	3	2
Flammability:	0	0
Physical:	1	1

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### 3. Composition

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Chemical Family:	Ceramic
Additional Names:	Arsenic (III) sulfide, Arsenic trisulfide
Arsenic sulfide (As <sub>2</sub> S <sub>3</sub> ):	
Percentage:	100 wt%
CAS #:	1303-33-9
EC #:	215-117-4

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### 4. First Aid Procedures

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General Treatment:	Remove any contaminated clothing. Supply oxygen if breathing is difficult Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek immediate medical attention
Ingestion:	Do not induce vomiting. Seek immediate medical attention
Skin:	Wash affected area with mild soap and water.
Eyes:	Flush eyes with water, blinking often for several minutes.

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### 5. Firefighting Measures

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Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

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### 6. Accidental Release Measures

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If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

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### 7. Handling and Storage

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Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

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## 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	0.5 mg/m <sup>3</sup> as As, long-term value
Threshold Limit Value:	0.1 mg/m <sup>3</sup> as As, long-term value
Special Equipment:	None
Respiratory Protection:	Refer to 29CFR1910.1018 for regulations on respiratory protection required during exposure to inorganic arsenic.
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	Yellow
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Sulfur (rotten eggs)
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	707 °C
Flash Point:	300 °C
Autoignition Temperature:	N/A
Density:	3.43 g/cc
Molecular weight:	246.035 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fumes, Sulfur oxides, Arsenic oxides

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## 11. Toxicological Information

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Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	Toxic
Inhalation:	Toxic
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	185 mg/kg for rat by mouth 936 mg/kg for rat by skin
Carcinogen:	EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a casual association between exposure and cancer IARC-1: Carcinogenic to humans: sufficient evidence of carcinogenicity ACGIH A1: Confirmed human carcinogen: Agent is carcinogenic to humans based on epidemiologic studies of, or convincing clinical evidence in, exposed humans. Carcinogen as defined by OSHA NTP-K: Known to be carcinogenic: sufficient evidence from human studies
Addition information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## 12. Ecological Information

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Aquatic Toxicity:	High
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	Very toxic for aquatic organisms Avoid transfer into the environment Keep away from water sources May cause long lasting harmful effects to aquatic life

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## 13. Disposal Considerations

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Dispose of in accordance with local, state, national, and international regulations.

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## 14. Transportation Data

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Hazardous:	Hazardous
	
Hazard Class:	6.1 Toxic substances
Packing Group:	III
UN Number:	UN1557
Proper Shipping Name:	Arsenic compounds, solid, n.o.s. (Arsenic sulfide)

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## 15. Regulatory Information

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Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	Yes

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## 16. Other Information

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This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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